What is claimed:

1. A vaccine adjuvant, comprising:

a. an agent that increases interleukin-15 (IL-15) activity; and,

b. an agent that decreases interleukin-2 (IL-2) activity.

2. The vaccine adjuvant of Claim 1, wherein said agent that increases IL-15 activity is an agent that increases IL-15 receptor activity without enhancing IL-2 receptor activity.

3. The vaccine adjuvant of Claim 2, wherein said agent that increases IL-15 activity is IL-15 or a homologue of IL-15 that has IL-15 biological activity.

4. The vaccine adjuvant of Claim 2, wherein said agent that increases IL-15 activity is an antibody that selectively binds to and activates an IL-15 receptor and does not substantially bind to and activate an IL-2 receptor.

5. The vaccine adjuvant of Claim 2, wherein said agent selectively binds to IL-15Rα.

6. The vaccine adjuvant of Claim 1, wherein said agent that increases IL-15 activity is an agent that binds to and increases the half-life of IL-15.

7. The vaccine adjuvant of Claim 1, wherein said agent that increases IL-15 activity is a recombinant nucleic acid molecule comprising a nucleic acid sequence encoding IL-15 or a homologue of IL-15 that has IL-15 biological activity.

8. The vaccine adjuvant of Claim 1, wherein said agent that increases IL-15 activity is an agent that binds to a regulatory region of a gene encoding IL-15 and increases transcription of said gene encoding IL-15.

9. The vaccine adjuvant of Claim 1, wherein said agent that decreases IL-2 activity is an antibody that selectively binds to IL-2 and blocks IL-2, eliminates IL-2 or prevents the interaction of IL-2 with its receptor.

10. The vaccine adjuvant of Claim 1, wherein said agent that decreases IL-2 activity is a compound that binds to and degrades IL-2.

11. The vaccine adjuvant of Claim 1, wherein said agent that decreases IL-2

activity is a compound that blocks or decreases the activity of IL-2 receptors without blocking or decreasing the activity of IL-15 receptors.

12. The vaccine adjuvant of Claim 11, wherein said agent selectively binds to IL-2Rα.

13. The vaccine adjuvant of Claim 1, wherein said agent that decreases IL-2 activity is an antisense nucleic acid molecule that hybridizes to a gene encoding IL-2 under high stringency conditions and inhibits the expression of IL-2.

14. The vaccine adjuvant of Claim 1, further comprising a delivery vehicle that targets memory T lymphocytes.

15. The vaccine adjuvant of Claim 14, wherein said delivery vehicle comprises an antibody that selectively binds to a cell surface molecule expressed by memory T lymphocytes.

16. A vaccine comprising:

a. the vaccine adjuvant of Claim 1; and

b. a vaccinating antigen.

17. The vaccine of Claim 16, wherein said vaccinating antigen is selected from the group consisting of: a tumor antigen and an antigen from an infectious disease pathogen.

18. A method to increase T lymphocyte memory against an antigen, comprising administering to an animal the vaccine of Claim 16.

19. A method to increase T lymphocyte memory comprising administering to an animal a composition comprising an agent that increases IL-15 activity and an agent that decreases IL-2 activity.

20. The method of Claim 19, wherein said step of administering increases the activity or survival of $CD25^+$ T cells in said animal.

21. The method of Claim 19, wherein said composition is administered to a site of a vaccination in said animal.

22. The method of Claim 19, further comprising administering to said animal an antigen against which T lymphocyte memory is to be induced.

23. The method of Claim 19, wherein said agent that increases IL-15 activity is IL-15 or a homologue of IL-15 that has IL-15 biological activity.

24. The method of Claim 19, wherein said agent that increases IL-15 activity is an antibody that selectively binds to and activates an IL-15 receptor and does not substantially bind to and activate an IL-2 receptor.

25. The method of Claim 24, wherein said agent selectively binds to IL-15Rα.

26. The method of Claim 19, wherein said agent that increases IL-15 activity is an agent that binds to and increases the half-life of IL-15.

27. The method of Claim 19, wherein said agent that increases IL-15 activity is a recombinant nucleic acid molecule comprising a nucleic acid sequence encoding IL-15 or a homologue of IL-15 that has IL-15 biological activity.

28. The method of Claim 19, wherein said agent that increases IL-15 activity is an agent that binds to a regulatory region of a gene encoding IL-15 and increases transcription of said gene encoding IL-15.

29. The method of Claim 19, wherein said agent that decreases IL-2 activity is an antibody that selectively binds to IL-2 and blocks IL-2, eliminates IL-2 or prevents the interaction of IL-2 with its receptor.

30. The method of Claim 19, wherein said agent that decreases IL-2 activity is a compound that binds to and degrades IL-2.

31. The method of Claim 19, wherein said agent that decreases IL-2 activity is a compound that blocks or decreases the activity of IL-2 receptors without blocking or decreasing the activity of IL-15 receptors.

32. The method of Claim 31, wherein said agent selectively binds to IL-2Rα.

33. The method of Claim 19, wherein said agent that decreases IL-2 activity is an antisense nucleic acid molecule that hybridizes to a gene encoding IL-2 under high stringency conditions and inhibits the expression of IL-2.

34. A method to reduce an autoimmune response, comprising administering to a site of autoimmune response a composition comprising an agent that increases the activity of IL-2.

35. The method of Claim 34, wherein said agent that increases IL-2 activity is an agent that increases IL-2 receptor activity without enhancing IL-15 receptor activity.

36. The method of Claim 35, wherein said agent that increases IL-2 activity is IL-2 or a homologue of IL-2 that has IL-2 biological activity.

37. The method of Claim 35, wherein said agent that increases IL-2 activity is an antibody that selectively binds to and activates an IL-2 receptor and does not substantially bind to and activate an IL-15 receptor.

38. The method of Claim 35, wherein said agent selectively binds to IL-2Rα.

39. The method of Claim 34, wherein said agent that increases IL-2 activity is an agent that binds to and increases the half-life of IL-2.

40. The method of Claim 34, wherein said agent that increases IL-2 activity is a recombinant nucleic acid molecule comprising a nucleic acid sequence encoding IL-2 or a homologue of IL-2 that has IL-2 biological activity.

41. The method of Claim 34, wherein said agent that increases IL-2 activity is an agent that binds to a regulatory region of a gene encoding IL-2 and increases transcription of said gene encoding IL-2.

42. The method of Claim 34, further comprising administering to said site of said autoimmune response an agent that decreases IL-15 activity.

43. The method of Claim 42, wherein said agent that decreases IL-15 activity is an antibody that selectively binds to IL-15 and blocks IL-15, eliminates IL-15 or prevents the interaction of IL-15 with its receptor.

44. The method of Claim 42, wherein said agent that decreases IL-15 activity is a compound that binds to and degrades IL-15.

45. The method of Claim 42, wherein said agent that decreases IL-15 activity is a compound that blocks or decreases the activity of IL-15 receptors without blocking or

decreasing the activity of IL-2 receptors.

46. The method of Claim 45, wherein said agent selectively binds to IL-15Rα.

47. The method of Claim 42, wherein said agent that decreases IL-15 activity is an antisense nucleic acid molecule that hybridizes to a gene encoding IL-15 under high stringency conditions and inhibits the expression of IL-15.

48. The method of Claim 34, wherein said composition comprises a delivery vehicle that selectively targets a site of an autoimmune response.

49. The method of Claim 48, wherein said delivery vehicle comprises an antibody that selectively binds to a cell surface molecule expressed by a cell at said site of said autoimmune response.

50. The method of Claim 34, wherein said composition further comprises an autoantigen against which said autoimmune response is directed.

51. A composition for decreasing an undesirable T cell response, comprising:

a. an agent that increases the activity of IL-2; and

b. an agent that decreases the activity of IL-15.